SBADO-318/14-15
28-2-15

**M. A. R. 57 (Rule 116)**
Measurement Book

BRNO-481/28-2-15
No. B

Serial No. 2nd and final Bill 249525
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency ..... C. Shivaraj Contractor.
Date of commencement of work ..... D.O. Recorded: 28-02-2015

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Name of Work : Improvement and Asphalting to Road from Vidyaraeyapura Last Bus-stop to Akkie Double Road via HMT Layout 6th and 7th Blocks in Ward No. 09 in Vidyaraeyapura Sub-Division | | | | | | |
| | Estimated cost : Rs. 21.00 Lakhs. | | | | | | |
| | Work code/JOB No : 009-14-000033 | | | | | | |
| | Work order No : EE/BTP/BBMP/E-PMT:23/2014-15 | | | | | | |

Dt 20/01/15

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Date of commencement : 24-01-2018 | | | | | | |
| | Date of completion : 28-02-2018 | | | | | | |
| | (1) Earthwork Excavation by manual means in hard soil, including an average horizontal throw upto 2m and an average lift upto 0.50m, Excavated surface levelled and sides neatly dressed, the disposed Earth to be levelled neatly after breaking of clods etc complete as per specifications and direction of Engineer in charge of the work. | | | | | | |
| | Total as per this MB. P 249581 | | | | | | 25358.00 |
| | Item no. (1) 266.25 m³ @ 95.24/m³ | | | | | | |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work | N |
|---|---|---|
| 1 | 2 | |
| | 2) Removing R.S. slabs as per specifications and of the work. | |
| | 3) Retaining stone slabs of etc complete as per Engineer in charge of | |

NT BOOK

| ensions | | Contents | Reference to last Measurement |
|---|---|---|---|
| Breadth 5 | Depth 6 | 7 | 8 |
| -2018 | | | |
| -2018 | | | |
| | | | |
| neis in hard soil, | | | |
| upto 2m and any | | | |
| surface levelled and | | | |
| Earth to be levelled | | | |
| mplete as per specifica | | | |
| of the work. | | | |
| this MB.P 249581 | | | 25358.00 |

① 266.25 m³ @ 95.24/m³

M. A. R. 57 (Rule 116)
Measurement Book

No. B

249526

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions | | | | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | Number 3 | Length 4 | Breadth 5 | Depth 6 | | |
| 2) | Removing R.S. slabs of drain and stacking etc complete as per specifications and directions of Engineer-in-charge of the work. | | | | | | |
| | Qty vide this MB.P 249582 | | | | | | |
| | It no. (1) : 675.00 m² @ 52.66/m² | | | | | | 35505.00 |
| 3) | Refixing stone slabs of drains of pointing in CM 1:3 etc complete as per specifications and directions of Engineer in charge of the work | | | | | | |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | Qty as per Sr no. (2) = 675.42 | | | @ 73.51/m2 | 49619.00 |
| 4) | Scarifying existing stone metal layer upto 75mm thick along with their bituminous surface, picking up dislodged materials and stacking of old serviceable materials with lead of 100m, sequential spreading of the salvaged aggregates with fresh aggregates as prepared bade and consolidating as per MORTH specifications including cutting all lead, Hire of machineries etc complete as per specifications and directions of engineer in charge of the work. | | | | | | |
| | | | Qty as per Sr no. 3 of this MB | | | | 65093.00 |
| | | | = 852.00 m2 | | | @ 76.40/m2 | |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work | N |
|---|---|---|
| 1 | 2 | |
| 5) | Construction of Embankment with gravel/murrum with lead to site, spreading, grading to meet requirements of specifications, etc complete of the work. | |
| 6) | Providing, laying, spr | |

ENT BOOK

| Dimensions | | | Contents | Reference to last Measurement |
|---|---|---|---|---|
| th | Breadth 5 | Depth 6 | 7 | 8 |
| ar | per It no. ② | | = 675 m² @ 73.51/m² | 49619.00 |
| ver | upto 75mm thick | | | |
| ding | up dcompressed | | | |
| ecable | materials with | | | |
| | of the advaged aggregate | | | |
| bade | and consolidating. | | | |
| | complete all labour, | | | |
| | per specification | | | |
| | the work. | | | |
| | It no. 3 of this MB | P 249583-84 | 65993.00 | |
| 2.00 | m² @ 76.40/m² | | | |

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

249527

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| a) | Constructing Embankement with approved material gravel/murrum with all lifts and leads, transporting to site, spreading, grading to required slope and Compacting to meet requirement table 300-2. Complete as per specifications etc and directions Engineer in charge of the work. | | | | | | |
| | | Only wide It no. ④ | | | | of this MB P- | |
| b) | Providing, laying, spreading and Compacting graded stone | P 249584 | 127.00 | 3 @ | 171.32/m³ | 21,895.00 | |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | aggregate to wet mix macadam specifications including premixing the material with water at OMC in mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory Roller to achieve the desired density etc complete as per specifications and directions of Engineer-In-charge of work | | | | | | |
| | OFC route ID no. ① RMB-2497 | | | | | | 49883.00 |
| | P no. 249684 = 399.38 m E 1176.53 m | | | | | | |
| 7) | Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with | | | | | | |

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work | N |
|---|---|---|
| 1 | 2 | |
| | Wire bushes and dry or coir brushes and/ and/or compressed air including cooling of w curing etc complete as | |
| 8) | Providing and applying | |

BOOK

| s | | Contents | Reference to last Measurement |
|---|---|---|---|
| dth | Depth 6 | 7 | 8 |
| | | this including c/w mechanical ipper to site, laying Low course on vibrating Roller to as per specifications work | |
| | | ① MB-2497 399.384 m² @ 1176.53/- including removing matter with | 49883.00 |

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

Name of Work ..... From..... To..... 249528

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions | | | | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | Number 3 | Length 4 | Breadth 5 | Depth 6 | | |
| | Wire brushes and small picks, sweeping with brooms, or dash brushes and finally dusting with old gunny bags and or compressed air to receive bituminous treatment including cost of all material, labour hire of machinery curing etc complete as per specifications. | | | | | | |
| | | | Qty as per | | | ⑤ | 25498.00 |
| | | P | 24986. | = | 2307.504 m² | | 11.05/m² |
| 8) | Providing and applying primer at coat from 12.2 to 14.6 | | | | | | |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | kg per 10sqm for surfaces of high porosity over prepared surface of granular base with cut back m.c over any other bituminous mixed with diesel at 13 kg/10sqm heated in bitumen boiler fitted with spray set including cost of all materials labour tion of mechanical etc complete | | | | | | |
| | | | | | | City engineer Rs no. (7) 2367.50 MT @ 149.10/MT | 344048.00 |
| 9) | Providing and laying bituminous concrete 40mm thick with 100-120 TPH batch type hot mix plant producing an average output of 75 T/hr using crushed aggregates of specified grading, premixed with bituminous | | | | | | |

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Serial No. .....
Name of Work ..... From
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work | Number |
|---|---|---|
| 1 | 2 | 3 |
| | binder @ 5.4 to 5.6 kg of m hot mix to work site, laying with dense control to the Rolling with smooth wheeled to achieve the desired comp Clause no 510.9 compl-ete MORTH specifications no 5 etc complete as per specific Engineer-in-charge of the w | |

NT BOOK

| mensions | | Contents | Reference to last Measurement |
|---|---|---|---|
| Breadth 5 | Depth 6 | 7 | 8 |
| ...passing over prepared ...ace m.c ...over any other ...f ...lorry heated in bitumen ...cost of all materials labour | | | |
| ...as per D.W. ⑨ 2307.50 sq.m @ 149.10/sq.m | | | 344048-00 |
| ...mixed stone ...thick with ...plant producing ...g crushed aggregates ...with bitumen | | | |

M. A. R. 57 (Rule 116)
Measurement Book

No. B

Serial No. .....

Name of Work ..... From..... To..... 249529

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions | | | | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | Number 3 | Length 4 | Breadth 5 | Depth 6 | | |
| | binder @ 5.4 to 5.6 kg. per sq.m of ...ture, transporting the hot mix to work site, laying with hydrostatic paver finisher with screed control to the required grade level and alignment Rolling with dynamic wheeled vibratory and tandem Rollers to achieve the desired compaction as per MORTH specified Clause no 500.9 complete in all respects as per specifications MORTH specifications no 500. With bitumen 60/70 etc complete as per specifications. and directions of Engineer-in-charge of the work. | | | | | | |

# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Ch. 0.00 to 30.00m | 1 | 30.m | $\frac{7.0+7.5}{2}$ | 0.04 | = 8.70m | |
| | 30.m to 60.m | 1 | 30.m | $\frac{7.5+7.6}{2}$ | 0.04 | 9.0 | |
| | 60.m to 90.00m | 1 | 30.m | $\frac{7.6+7.5}{2}$ | 0.04 | 9.06 | |
| | 90.m to 120.0m | 1 | 30.m | $\frac{7.5+7.4}{2}$ | 0.04 | 8.94 | |
| | 120.m to 150.m | 1 | 30.m | $\frac{7.4+7.5}{2}$ | 0.04 | 8.94 | |
| | 150.0m to 180.0m | 1 | 30.m | $\frac{7.5+7.6}{2}$ | 0.04 | 9.18 | |
| | 180.00 to 210.m | 1 | 30.m | $\frac{7.8+8.1}{2}$ | 0.04 | 9.54 | |

Serial No. .....

Name of Work ..... F

Name of Contractor of nature of Agency .....

Date of commencement of work .....

| Date | Full description, etc, of work | Numb |
|---|---|---|
| 1 | 2 | 3 |
| | Ch. 210.m to 240.0m | 1 |
| | 240.0 to 270.0m | |
| | 270.m to 300.m | |
| | 300.0 to 330.0m | |
| 10) | Road marking with hot a... | |
| | With reflective resin glass | |

NT BOOK

| mensions | | | Contents | Reference to last Measurement |
|---|---|---|---|---|
| | Breadth 5 | Depth 6 | 7 | 8 |
| | 7.0+7.5 / 2 | 0.04 | : 8.704 | |
| | 7.5+7.6 / 2 | 0.04 | 9.06 | |
| | 7.6+7.5 / 2 | 0.04 | 9.06 | |
| | 7.5+7.4 / 2 | 0.04 | 8.94 | |
| | 7.4+7.5 / 2 | 0.04 | 8.94 | |
| | 7.5+7.6 / 2 | 0.04 | 9.18 | |
| | 7.8+8.1 / 2 | 0.04 | 9.54 | |

M. A. R. 57 (Rule 116)
Measurement Book

No. B
249530

Serial No. .....
Name of Work ..... From..... To.....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date 1 | Full description, etc, of work 2 | Dimensions Number 3 | Length 4 | Breadth 5 | Depth 6 | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | Ch. 210.00 to 240.00 | 1 | 30.00 | 8.1+7.5 / 2 | 0.04 | 9.36 | |
| | 240.00 to 270.00 | 1 | 30.00 | 7.5+7.6 / 2 | 0.04 | 9.06 | |
| | 270.00 to 300.00 | 1 | 30.00 | 7.6+7.6 / 2 | 0.04 | 9.12 | |
| | 300.00 to 330.00 | 1 | 5.00 | 7.60 | 0.04 | 1.52 | |
| | | | | | | 92.484 | |
| | | C | 11843.52 | Lt. | | 92.304 | 109,3157.00 |
| 10) | Road marking with hot applied thermoplastic compound with reflectorising glass beads on bituminous surface | | | | | | |

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28/2/2015
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# MEASUREMENT BOOK

| Date | Full description, etc, of work | Dimensions | | | | Contents | Reference to last Measurement |
|---|---|---|---|---|---|---|---|
| | | Number | Length | Breadth | Depth | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surfaces level, uniform and free from streaks and holes etc complete as per specifications and direction of Engineer-In-charge of the Work | | | | | | |
| | not-operated | - | - | | | | |
| | | | | | | Total - Rs | 24,51,356.56 |

2130056-00

Serial No. .....
Name of Work .....
Name of Contractor of nature of Agency .....
Date of commencement of work .....

| Date | Full description, etc, of work | N |
|---|---|---|
| 1 | 2 | |
| | Certificate | |
| | (1) Certified that the con | |
| | (2) The contractor has | |
| | (3) There is no any de | |

## REMENT BOOK

| Dimensions | | | Contents | Reference to last Measurement |
|---|---|---|---|---|
| Length 4 | Breadth 5 | Depth 6 | 7 | 8 |
| | | | lied thermoplastic compound | |
| | | | ring glass beads at 250 gms | |
| | | | m is exclusive of surfaces to | |
| | | | streaks and holes etc | |
| | | | d direction of Engineer- | |
| | | | | |
| | | | | |
| | | | ot-operated | |
| | | | Total- Rs | 24,54,356.58 |

2/30,056.00

**M. A. R. 57 (Rule 116)**
Measurement Book

**No. B**

Serial No. .....

Name of Work ..... From..... To.....

Name of Contractor of nature of Agency .....

Date of commencement of work .....

249531

| Date 1 | Full description, etc, of work 2 | Dimensions | | | | Contents 7 | Reference to last Measurement 8 |
|---|---|---|---|---|---|---|---|
| | | Number 3 | Length 4 | Breadth 5 | Depth 6 | | |
| | Certificate | | | | | | |
| | (1) Certified that the contractor has worked done satisfactorily | | | | | | |
| | (2) The contractor has removed the debris from work site | | | | | | |
| | (3) There is no any dept materials issued to contractor | | | | | | |
| | 28/12/15 | | | | | | |

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore-97